

PATENT Docket No. 10305US02

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

YUNG YIP et al.

Serial No.: 10/822,884

Filed: April 13, 2004

For: STATIC DISSIPATIVE HOUSING FOR DATA CARTRIDGE CARRYING NON-TAPE STORAGE MEDIUM

Examiner: Tanh Q. Nguyen

Group Art Unit: 2182

Forum STATIC DISSIPATIVE HOUSING FOR DATA CARTRIDGE CARRYING NON-TAPE STORAGE MEDIUM

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Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Examiner Tanh Q. Nguyen Fax No.: (571) 273-8300

Dear Sir.

I certify that the following pages are being telefacsimile transmitted to the U.S. Patent and Trademark Office on the date shown below:

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Respectfully submitted,

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Yung Yip et al.

Examiner: Tanh Q. Nguyen CENTRAL FAX CENTER

Serial No.:

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NON-TAPE STORAGE MEDIUM

CERTIFICATE UNDER 37 CFR 1.8: I hereby certify that this correspondence is being t Commissioner for Patents, Alexandria, VA 22313-1450 on Name:

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Mail Stop Appeal Brief - Patents Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir/Madam:

This Appeal Brief is presented in response to the Notice of Panel Decision from Pre-Appeal Brief Review mailed November 13, 2007 and in support of the Notice of Appeal filed October 3, 2007, appealing the rejection of claims 1-8 and 16-20 of the above-identified application as set forth in the Final Office Action mailed July 3, 2007.

In the Notice of Panel Decision from Pre-Appeal Brief Review, the time period for filing the Appeal Brief was reset to one month from the mailing of the Notice of Panel Decision from Pre-Appeal Brief Review, or the balance of the two-month time period from the receipt of the Notice of Appeal, whichever is greater. Thus, in this instance, the time period for filing the Appeal Brief expires on December 13, 2007.

The U.S. Patent and Trademark Office is hereby authorized to charge Deposit Account No. 09-0069 in the amount of \$510.00 for filing a Brief in Support of an Appeal as set forth under 37 C.F.R. § 41.20(b)(2). At any time during the pendency of this application, please charge any required fees or credit any overpayment to Deposit Account No. 09-0069.

Appellant respectfully requests reconsideration and reversal of the Examiner's rejection of pending claims 1-8 and 16-20.

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REAL PARTY IN INTEREST

The real party in interest is Imation Corp having a principal place of business at 1 Imation Place, Oakdale, MN 55128-3421, USA.

RELATED APPEALS AND INTERPERENCES

Appellant submits that there are no related appeals or interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal.

STATUS OF CLAIMS

Claims 1-8 and 16-20 are pending in the application (see Claims Appendix), and are the subject of the present Appeal.

Claims 1-8, 10, and 16-20 were rejected under 35 U.S.C. 112, first paragraph, as failing comply with the enablement requirement.

Claims 3-5 and 17 were rejected under 35 U.S.C. 112, first paragraph, in that the Examiner contends that the specification does not reasonably provide enablement for a housing having a surface resistivity in a range of approximately 10⁶ ohms/square to approximately 10¹² ohms/square.

Claims 1-8 and 16-20 were rejected under 35 U.S.C. 103(a) as being unpatentable over Albretch et al. US Publication No. 2002/0159182 in view of Waggoner et al. US Publication No. 2004/0113129 and "STAT: Guide To LNP's Line Of Thermoplastic Composites For Electrostatic Dissipation" (STAT).

Claims 1-8 and 16-20 were rejected on the ground of non-statutory obviousness-type double patenting as being unpatentable over claims 1-5 of Hanzlik et al. US Patent No. 6,915,977 in view of Albretch et al. US Publication No. 2002/0159182.

STATUS OF AMENDMENTS

No amendments have been entered subsequent to the Final Office Action mailed July 3, 2007. The claims listed in the Claims Appendix, therefore, reflect the claims as of July 3, 2007.

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SUMMARY OF THE CLAIMED SUBJECT MATTER

One aspect of the present invention, as claimed in independent claim 1, provides a data cartridge (30; 130). The data cartridge includes a housing (32) having a surface resistivity in a range of approximately 10⁶ ohms/square to approximately 10¹² ohms/square, wherein the housing is adapted to dissipate a static charge of the data cartridge; a non-tape storage medium (34; 134) contained within the housing; circuitry (48/46/50; 136) contained within the housing for accessing the non-tape storage medium; and an externally accessible electrical connector (52) supported by the housing and electrically coupled to the circuitry (see. e.g., Figs. 3-5; page 9, line 9 - page 10, line 3; page 11, line 14 - page 12, line 3; page 13, line 20 - page 15, line 2).

One aspect of the present invention, as claimed in independent claim 16, provides a data cartridge (30; 130). The data cartridge includes a housing (32) formed of a material including a static dissipative polymer and having a surface resistivity in a range of approximately 10⁶ ohms/square to approximately 10¹² ohms/square, wherein the housing is adapted to dissipate a static charge of the data cartridge; a non-tape storage medium (34; 134) contained within the housing; circuitry (48/46/50; 136) for accessing the non-tape storage medium; and an externally accessible electrical connector (52) electrically coupled to the circuitry (see, e.g., Figs. 3-5; page 9, line 9 - page 10, line 3; page 11, line 14 - page 12, line 3; page 13, line 20 - page 15, line 2).

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

As indicated in the Advisory Action mailed September 14, 2007, the rejection of claims 1-8, 10, and 16-20 under 35 U.S.C. 112, first paragraph, as failing comply with the enablement requirement has been overcome.

As indicated in the Advisory Action mailed September 14, 2007, the rejection of claims 3-5 and 17 under 35 U.S.C. 112, first paragraph, that the specification does not reasonably provide enablement for a housing having a surface resistivity in a range of approximately 10⁶ ohms/square to approximately 10¹² ohms/square has been overcome.

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As indicated in the Advisory Action mailed September 14, 2007, the rejection of claims 1-8 and 16-20 on the ground of non-statutory obviousness-type double patenting as being unpatentable over claims 1-5 of Hanzlik et al. US Patent No. 6,915,977 in view of Albretch et al. US Publication No. 2002/0159182 has been overcome.

Appellant seeks review of the rejection of claims 1-8 and 16-20 under 35 U.S.C. 103(a) as being unpatentable over Albretch et al. US Publication No. 2002/0159182 in view of Waggoner et al. US Publication No. 2004/0113129 and "STAT: Guide To LNP's Line Of Thermoplastic Composites For Electrostatic Dissipation" (STAT).

ARGUMENT

I. Rejections Under 35 U.S.C. §103

A. Applicable Law

Under 35 U.S.C. §103, the Examiner has the burden to establish a prima facte case of obviousness. In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Three criteria must be satisfied to establish a prima facte case of obviousness. First, the Examiner must show that some objective teaching in the prior art or some knowledge generally available to one of ordinary skill in the art would teach, suggest, or motivate one to modify a reference or to combine the teachings of multiple references. Id. Second, the prior art can be modified or combined only so long as there is a reasonable expectation of success. In re Merck & Co., Inc., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Third, the prior art reference or combined prior art references must teach or suggest all of the claim limitations. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). These three criteria are also set forth in M.P.E.P §706.02(j). Even when obviousness is based on a single reference, there must be a showing of suggestion or motivation to modify the teachings of that reference. In re Kotzab, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). In performing the obviousness inquiry under 35 U.S.C. §103, the Examiner must avoid hindsight. In re Bond, 910 F.2d 831, 834, 15 USPQ2d 1566, 1568 (Fed. Cir. 1990), reh'g denied, 1990 U.S. App. LEXIS 19971 (Fed. Cir. 1990).

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B. Rejection of claims 1-8 and 16-20 under 35 U.S.C. §103(a)

Because the rejection of claims 1-8 and 16-20 under 35 U.S.C. 103(a) as being unpatentable over Albretch et al. US Publication No. 2002/0159182 in view of Waggoner et al. US Publication No. 2004/0113129 and "STAT: Guide To LNP's Line Of Thermoplastic Composites For Electrostatic Dissipation" (STAT) fails to establish a *prima facie* case of obviousness, the rejection of claims 1-8 and 16-20 is not correct and should be withdrawn.

Independent claim 1 recites, amongst other things, "a housing having a surface resistivity in a range of approximately 10⁶ ohms/square to approximately 10¹² ohms/square, wherein the housing is adapted to dissipate a static charge of the data cartridge."

Independent claim 16 recites, amongst other things, "a housing formed of a material including a static dissipative polymer and having a surface resistivity in a range of approximately 10⁶ ohms/square to approximately 10¹² ohms/square, wherein the housing is adapted to dissipate a static charge of the data cartridge."

Independent claims 1 and 16, therefore, each include a housing having a surface resistivity in a range of approximately 10⁶ ohms/square to approximately 10¹² ohms/square, wherein the housing is adapted to dissipate a static charge of the data cartridge.

The Examiner recognizes that the Albretch reference does <u>not</u> teach the housing being formed of materials having a surface resistivity in a range of 10⁶ ohms/square to 10¹² ohms/square (Final Office Action, page 5), and suggests that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use static dissipative materials with a surface resistivity in a range of 10⁶ ohms/square to 10¹² ohms/square for the housing (Final Office Action, page 6).

The Albretch reference discloses a data storage cartridge baving a data storage device, such as an encased magnetic disk drive assembly, supported and mounted in a cartridge shell (see, e.g., Abstract; Figs. 3 and 4). In addition, the Albretch reference discloses that the data storage cartridge has a backing plate 70, and provides that:

The backing plate is electrically coupled to the data storage device by means of land 85 of flex cable 65, to a ground thereof, thereby forming an electrostatic discharge path from the data storage

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device to the backing plate and through the electrically semiconductive material to the alignment pins of the transfer station, which are electrically grounded.... (para. [0066]; see also Fig. 18).

Thus, <u>backing plate 70 and land 85 of flex cable 65</u> of the data storage cartridge of the Albretch reference form an electrostatic discharge path for the data storage cartridge.

As backing plate 70 and land 85 of flex cable 65 of the data storage cartridge of the Albretch reference already form an electrostatic discharge path, Appellant submits that forming the cartridge shell of the data storage cartridge of the Albretch reference of a static dissipative material would <u>not</u> have been obvious for at least the reason that the data storage cartridge of the Albretch reference already includes an electrostatic discharge path.

As the principle of operation of backing plate 70 and land 85 of flex cable 65 of the Albretch reference is to form an electrostatic discharge path for the data storage cartridge, Appellant submits that forming the cartridge shell of the data storage cartridge of the Albretch reference of a static dissipative material would change the principle of operation of the data storage cartridge in that backing plate 70 and land 85 of flex cable 65 would be of no use. If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious. In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). Thus, Appellant submits that forming the cartridge shell of the data storage cartridge of the Albretch reference of a static dissipative material would <u>pot</u> have been obvious.

In addition, the Albretch reference provides that backing plate 70 is formed of a semiconductive plastic material having electrical resistivity (para. [0066]). In one example, the Albretch reference provides that the material has sufficient embedded carbon to provide the electrical resistivity, comprising 10%-30% carbon filled plastic (para. [0066]). In one specific example, the Albretch reference provides that the material of backing plate 70 is a carbon filled plastic comprising a 20% carbon filled polycarbonate, called "Stat-Kon DC-1004-FR" (para. [0066]).

The inventors of the Albretch reference, therefore, full aware of the Stat-Kon line of materials, chose not to form the cartridge shell of the data storage cartridge of a Stat-Kon

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material. Rather, the inventors of the Albretch reference chose only to form backing plate 70 of a Stat-Kon material. Since the inventors of the Albretch reference, full aware of the Stat-Kon line of materials, chose not to form the cartridge shell of the data storage cartridge of a Stat-Kon material, Appellant submits that the Albretch reference actually teaches away from forming the cartridge shell of a static dissipative material. A prima facie case of obviousness may be rebutted by showing that the art, in any material respect, teaches away from the claimed invention. In re Geisler, 116 F.3d 1465, 1471, 43 USPQ2d 1362, 1366 (Fed. Cir. 1997). Thus, Appellant submits that forming the cartridge shell of the data storage cartridge of the Albretch reference of a static dissipative material would not have been obvious.

In view of the above, Appellant submits that the Examiner has not established a *prima* facie case of obviousness of independent claims 1 and 16, and submits that independent claims 1 and 16 are each patentably distinct from the Albretch, Waggoner, and STAT references.

Furthermore, as dependent claims 2-8 further define patentably distinct independent claim 1, and dependent claims 17-20 further define patentably distinct independent claim 16, Appellant submits that these dependent claims are also patentably distinct from the Albretch, Waggoner, and STAT references. Appellant, therefore, respectfully submits that the rejection of claims 1-8 and 16-20 under 35 U.S.C. §103(a) is not correct and should be withdrawn, and submits that claims 1-8 and 16-20 should be allowed.

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CONCLUSION

For the above reasons, Appellant respectfully submits that the art of record neither anticipates nor renders obvious the claimed invention. Thus, the claimed invention does patentably distinguish over the art of record. Appellant, therefore, respectfully submits that the above rejections are not correct and should be withdrawn, and respectfully requests that the Examiner be reversed and that all pending claims be allowed.

Respectfully submitted,

Date: Dec 13, 2007

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CLAIMS APPENDIX

(Previously Presented) A data cartridge, comprising: 1.

a housing having a surface resistivity in a range of approximately 10⁶ ohms/square to approximately 10¹² ohms/square, wherein the housing is adapted to dissipate a static charge of the data cartridge;

a non-tape storage medium contained within the housing; circuitry contained within the housing for accessing the non-tape storage medium; and an externally accessible electrical connector supported by the housing and electrically coupled to the circuitry.

- 2. (Original) The data cartridge of claim 1, wherein the housing is adapted to dissipate approximately 5,000 volts DC to approximately 500 volts DC in less than approximately 0.5 seconds.
- 3. (Previously Presented) The data cartridge of claim 1, wherein the housing is formed of a static dissipative polymer.
- 4. (Original) The data cartridge of claim 1, wherein the housing is formed of a material including at least one of polypropylene, polyethylene, polystyrene, nylon, polycarbonate, ABS, and acrylic, and a dissipative polymer.
- 5. (Original) The data cartridge of claim 1, wherein the housing is formed of a material including a carbon-filled resin.
- 6. (Original) The data cartridge of claim 1, wherein the housing conforms to industry standard dimensions for a magnetic tape data cartridge.

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7. (Original) The data cartridge of claim 1, wherein the non-tape storage medium comprises a disk-shaped storage medium.

8. (Original) The data cartridge of claim 1, wherein the non-tape storage medium comprises one of a solid-state storage medium, an optical storage medium, a magneto-optical storage medium, and a holographic storage medium.

9-15. (Cancelled)

16. (Previously Presented) A data cartridge, comprising:

a housing formed of a material including a static dissipative polymer and having a surface resistivity in a range of approximately 10⁶ ohms/square to approximately 10¹² ohms/square, wherein the housing is adapted to dissipate a static charge of the data cartridge;

a non-tape storage medium contained within the housing; circuitry for accessing the non-tape storage medium; and an externally accessible electrical connector electrically coupled to the circuitry.

- 17. (Original) The data cartridge of claim 16, wherein the material of the housing further includes at least one of polypropylene, polyethylene, polystyrene, nylon, polycarbonate, ABS, and acrylic.
- 18. (Original) The data cartridge of claim 16, wherein the housing is adapted to dissipate approximately 5,000 volts DC to approximately 500 volts DC in less than approximately 0.5 seconds.
- 19. (Original) The data cartridge of claim 16, wherein the housing conforms to industry standard dimensions for a magnetic tape data cartridge.

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20. (Original) The data cartridge of claim 16, wherein the non-tape storage medium comprises one of a solid-state storage medium, an optical storage medium, a magneto-optical storage medium, and a holographic storage medium.

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Appeal Brief to the Board of Patent Appeals and Interferences of the United States Patent and Trademark Office

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EVIDENCE APPENDIX

None.

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RELATED PROCEEDINGS APPENDIX

None.